

The Solar System ▪ *Guided Reading and Study*

The Inner Planets

This section describes the main characteristics of the four planets closest to the sun.

Use Target Reading Skills

As you come to each major head in the section, stop and write what you know about that topic. As you read the passage, write what you learn.

What You Know
1. Most of Earth is covered with water.
2.
3.
4.

What You Learned
1.
2.
3.
4.

Introduction

1. Which planets are often called the terrestrial planets?

2. What are three similarities among the inner planets?

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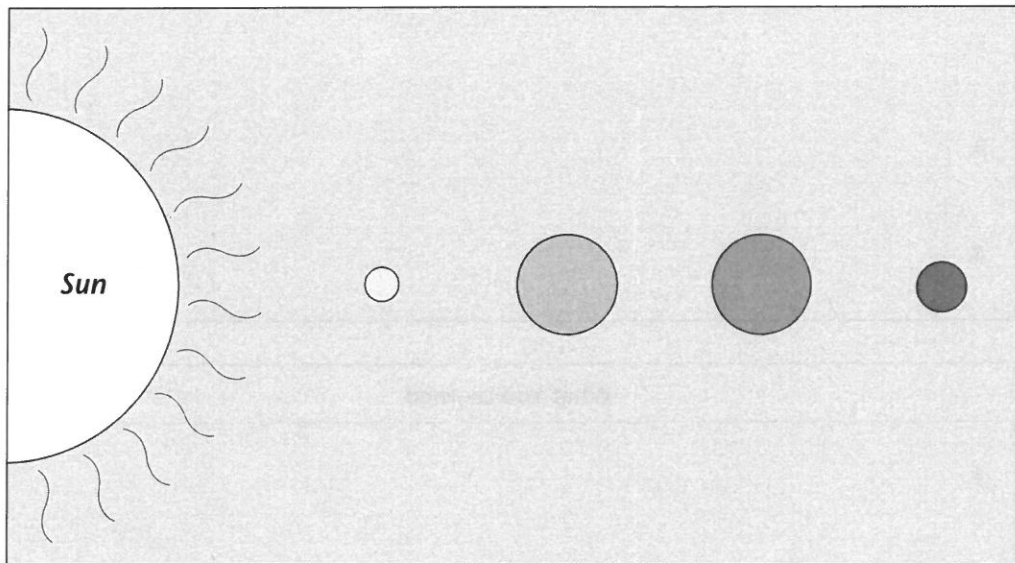
Use the table "The Inner Planets" in your textbook to answer questions 3 and 4.

3. Rank the inner planets according to diameter. Rank the planet with the greatest diameter as 1.

_____ Mercury _____ Venus _____ Earth _____ Mars

4. Which planet rotates on its axis in about the same amount of time that Earth does? _____

5. The drawing below shows the sun and the four inner planets. Label the inner planets according to their place in the solar system.



Earth

6. Circle the letter of each sentence that is true about Earth.
- a. About 70 percent of its surface is covered with water.
 - b. Its atmosphere extends about 1 kilometer above its surface.
 - c. Most of the atmosphere is composed of oxygen gas.
 - d. No other planet in the solar system has oceans like Earth's.
7. What are the three main layers of Earth?
- a. _____ b. _____
- c. _____
8. What is Earth's dense inner core made of? _____

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The Inner Planets *(continued)*

Mercury

9. Circle the letter of each sentence that is true about Mercury.
- a. Mercury's surface has many craters.
 - b. Mercury has no moons.
 - c. The interior of Mercury is composed mostly of the element mercury.
 - d. Mercury is the planet closest to the sun.
10. Why does Mercury have a greater range of temperatures than any other planet?

Venus

11. Because Venus is often a bright object in the west after sunset, it is sometimes called the _____.
12. Why is Venus sometimes called "Earth's twin"?
-
-
13. Circle the letter of the gas that makes up most of the atmosphere of the planet Venus.
- a. oxygen
 - b. nitrogen
 - c. sulfuric acid
 - d. carbon dioxide
14. How is the rotation of Venus different from that of most other planets and moons?
-
-
-
15. Is the following sentence true or false? The atmosphere of Venus is so thick that there is never a sunny day on its surface.
-
16. The trapping of heat by the atmosphere of Venus is called the _____.

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Mars

17. Why is Mars called the “red planet”?

18. The atmosphere on Mars is composed mostly of _____.

19. Is the following sentence true or false? There are no canals on Mars.

20. Why do some regions on Mars look darker than others?

21. Circle the letter of each sentence that is true about Mars.

- a. The rocks on Mars are covered with a rusty dust.
- b. Mars has seasons because it is tilted on its axis.
- c. Mars has many large oceans on its surface.
- d. Mars has giant volcanoes on its surface.

22. What are the two moons of Mars?

- a. _____
- b. _____

23. Complete the table to compare and contrast characteristics of Earth and Mars.

Characteristics of Earth and Mars		
Characteristic	Earth	Mars
Atmosphere	Mostly nitrogen and oxygen	a.
Moons	One	b.
Seasons	c.	Yes
Surface	Solid and rocky	d.
Water	e.	At poles and possibly underground

f. Use the table to identify which characteristics of Mars make it difficult or impossible for humans to live there without life support.
